CLAIMS

Sub B1

1. An imaging device, comprising:

an optical sensor having an output for providing pixel signals generated in response to light projected onto regions of the optical sensor; and

an amplifier having a first input coupled for receiving the pixel signals, a first output for providing an imaging signal, and a control input coupled for receiving control data to amplify the pixel signals to different gains when the pixel signals are generated in different regions of the optical sensor.

2. The imaging device of claim 1, wherein the optical sensor includes a plurality of photoactive devices disposed in the regions of the optical sensor.

3. The imaging device of claim 2, wherein the optical sensor has an address input coupled for receiving pixel addresses for selecting the pixel signals in different orders.

Sub D2

4. The imaging device of claim 3, further comprising a memory circuit for storing the control data, the memory circuit having an address input coupled for receiving the pixel addresses and an output coupled to the control input of the amplifier.

5. The imaging device of claim 3, wherein the optical sensor includes a multiplexer having a first input coupled to the output of the optical sensor, and a selection input coupled to the address input of the optical sensor for selecting among photoactive devices of the optical sensor to provide the pixel signals.

6. The imaging device of claim 1, further comprising an analog to digital converter having an input coupled for receiving the imaging signal and an output for providing imaging data.

7. A method of capturing an image, comprising the step of altering a gain of pixel signals through an amplifier in response to control data to compensate for a difference in response to light projected on different regions of an optical sensor.

8. The method of claim 7, further comprising the step of projecting light from the image onto first and second regions of the optical sensor to generate first and second pixel signals, respectively.

9. The method of claim 8, wherein the step of altering includes the steps of:

amplifying the first pixel signal through the amplifier to a first gain; and

amplifying the second pixel signal through the amplifier to a second gain.

10. The method of claim 9, wherein the first pixel signal has a first amplitude when a light intensity is projected on the first region of the optical sensor, the second pixel signal has a second amplitude less than the first amplitude when the light intensity is projected on the second region of the optical sensor, and the step of amplifying the second pixel signal includes the step of amplifying the second pixel signal through the amplifier to the second gain greater than the first gain.

11. The method of claim 8, further comprising the step of selecting the first and second regions of the optical sensor with address data to produce the first and second pixel signals.

12. The method of claim 11, wherein the step of selecting includes the step of multiplexing the first and second pixel signals with the address data.

13. The method of claim 12, further comprising the steps of:

storing the control data; and

retrieving the control data with the address data.

14. The method of claim 7, further comprising the steps of:

amplifying the pixel signals through the amplifier to produce an imaging signal; and

converting the imaging signal to digital imaging data for viewing.

SUB B3

15. An image capturing method, comprising the steps of:

sensing light projected on first and second regions of an optical sensor to produce first and second pixel signals;

setting a gain of an amplifier with first control data for amplifying the first pixel signal; and

altering the gain of the amplifier with second control data for amplifying the second pixel signal to equalize the responses of the first and second regions of the optical sensor to the light.

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16. The method of claim 15, wherein the first and second pixel signals are amplified to produce a monochrome imaging signal.

add B4